

## **REMARKS**

**[0001]** Applicant respectfully requests entry of the following remarks and reconsideration of the subject application. Applicant respectfully requests entry of the amendments herein. The remarks and amendments should be entered as they accompany a Request for Continued Examination and the appropriate fee.

**[0002]** Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-35 are presently pending. Claims amended herein are 1-7, 10-16, and 19-35. Claims withdrawn or cancelled herein are none. New claims added herein are none.

### **Formal Request for an Interview**

**[0003]** If the Examiner's reply to this communication is anything other than allowance of all pending claims, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative for the Applicant—so that we can talk about this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

**[0004]** Please contact me or my assistant to schedule a date and time for a telephone interview that is most convenient for both of us. While email works great for us, I welcome your call to either of us as well. Our contact information may be found on the last page of this response.

### **Claim Amendments**

**[0005]** Without conceding the propriety of the rejections herein and in the interest of expediting prosecution, Applicant amends claims 1-7, 10-16, and 19-35 herein. Applicant amends claims to clarify claimed features in accordance with the disclosure of the Specification. Such amendments are made to expedite prosecution and quickly identify allowable subject matter. Such amendments are merely intended to clarify the claimed features, and should not be construed as further limiting the claimed invention in response to cited prior art.

### **Formal Matters**

#### **Claims**

**[0006]** The Examiner objects to claim 30 for an informality. Herein, Applicant amends these claims, as shown above, to correct the informalities noted by the Examiner.

### **Substantive Matters**

#### **Claim Rejections under § 112**

**[0007]** Claims 1-35 are rejected under 35 U.S.C. § 112, 2<sup>nd</sup> ¶. In light of the amendments and discussion presented herein, Applicant submits that these rejections are moot. Accordingly, Applicant asks the Examiner to withdraw these rejections.

### **Claim Rejections under § 103**

**[0008]** Claims 1-35 are rejected under 35 U.S.C. § 103. In light of the amendments and discussion presented herein, Applicant submits that these rejections are moot. Furthermore, for the reasons set forth below, the Examiner has not made a prima facie case showing that the rejected claims are obvious. Accordingly, Applicant asks the Examiner to withdraw these rejections.

**[0009]** Accordingly, Applicant respectfully requests that the § 103 rejections be withdrawn and the case be passed along to issuance.

**[0010]** The Examiner's rejections are based upon the following references in combination:

- **Becker:** *Becker*, US Patent No. 6,301,579 (issued Oct. 9, 2001);
- **Ushijima:** *Ushijima et al.*, US Patent No. 5,890,150 (issued Mar. 30, 1999);
- **Smith:** *Smith et al.*, US Patent No. 6,591,274 (issued Jul. 8, 2003);
- **Browning:** *Browning et al.*, US Patent No. 5,903,302 (issued May 11, 1999).

### **Overview of the Application**

**[0011]** The Application describes a technology for creating a mining structure which contains processed data from a data set. This data may be used to train one or more models. In addition to the selection of data to be used by a model from a data set, processing parameters are set, in one embodiment. For example, the discretization of a continuous variable into buckets, the number of buckets, and/or the sub-range

corresponding to each bucket is set when the mining structure is created. The mining structure is processed, which causes the processing and storage of data from data set in the mining structure. After processing, the mining structure can be used by one or more models. When more than one mining model has been trained on one mining structure, the initial processing need not be performed multiple times.

### **Cited References**

**[0012]** The Office cites Becker as the primary reference, Ushijima as the secondary reference, alternately Smith or Browning as the tertiary reference, and Smith as a quaternary reference in its obviousness-based rejections.

#### **Becker**

Becker describes a technology for data structure visualization. A data file based on a data set of relational data is stored as a relational table, where each row represents an aggregate of all the records for each combination of values of the attributes used. Once loaded into memory, an inducer is used to construct a hierarchy of levels, called a decision table classifier, where each successive level in the hierarchy has two fewer attributes. Besides a column for each attribute, there is a column for the record count (or more generally, sum of record weights), and a column containing a vector of probabilities (each probability gives the proportion of records in each class). Finally, at the top-most level, a single row represents all the data. The decision table classifier is then passed to the visualization tool for display. By building a representative scene graph adaptively, the visualization application never loads the whole data set into memory. Interactive

techniques, such as drill-down and drill-through are used to view further levels of detail or to retrieve some subset of the original data. The decision table visualizer helps a user understand the importance of specific attribute values for classification.

### Ushijima

**[0013]** Ushijima describes a technology for a query issue processing method, a query conversion processing method, and a data control processing method for enhancing the efficiency of random sampling processing for use in a database processing system. In query issue processing, a query including random sampling processing is issued. In query conversion processing, application sequences of random sampling processing and another query processing are exchanged by considering a sampling unit of the random sampling processing. Further, in record control processing, random access to a secondary storage device is reduced, thereby enhancing random sampling processing efficiency. Unlike the conventional query conversion processing not considering the sampling unit, the issuance of the query including random sampling processing and performing query conversion by considering the sampling unit allow random sampling to be applied also to a query including aggregation processing, thereby enhancing the efficiency of queries in a wider range. Reduction in the random access to the secondary storage device further enhances that efficiency.

### Smith

**[0014]** Smith describes a technology for a computer software framework and method for accessing data from a datastore. The invention discloses a framework for

accessing data from a datastore. The framework is comprised of a datatable comprising data retrieved from a datastore. A first class object, a second class object, and a third class object populated with columns of data from the datatable, and the second class object is referenced by the first class object and the third class object is referenced by the second class object. A hashtable is used to cache the first, second, and third class objects such that the first class object is stored as a key in the hashtable and the second and third class objects are the corresponding value of that key in the hashtable. The method for accessing data from a datastore comprises creating a datatable comprising data retrieved from a datastore. A first class object, a second class object, and a third class object are populated with columns of data from the datatable. The second class object is referenced by the first class object and the third class object is referenced by the second class object. The first, second, and third class objects are cached in a hashtable such that the first class object is stored as a key in the hashtable and the second and third class objects are the corresponding value of that key in the hashtable.

Browning

**[0015]** Browning describes a technology for a video call distribution method that provides the user of a video station with access to a video network conferencing station without human operator assistance, even if the communication protocols of the user video station are incompatible with those of the video network conferencing system. Access is provided by remote user transmitted DTMF (or voice) signals, which signals are converted into compatible protocols in real time.

## **Obviousness Rejections**

### **Lack of *Prima Facie* Case of Obviousness (MPEP § 2142)**

**[0016]** Applicant disagrees with the Examiner's obviousness rejections. Arguments presented herein point to various aspects of the record to demonstrate that all of the criteria set forth for making a prima facie case have not been met.

**[0017]** Applicant submits that the obviousness rejections are not valid because, for each rejected claim, no combination of reference discloses, suggests or implies each and every element of that rejected claim.

### **Based upon Becker and Ushijima**

**[0018]** The Examiner rejects claims 1, 3-10, 12-18, 30, and 32-35 under 35 U.S.C. § 103(a) as being unpatentable over Becker in view of Ushijima. Applicant respectfully traverses the rejections of these claims. Based on the reasons given below, Applicant asks the Examiner to withdraw the rejections of these claims.

Independent Claim 1

**[0019]** The Examiner indicates (Action, pp. 4-5) the following with regard to this claim:

As to claim 1, Becker teaches the following claimed subject matter:

Accessing one or more data sets (col. 10, l. 30);

Retrieving data from a data set (col. 10, ll. 29-44);

Creating one or more mining structures using data retrieved from the data set, wherein the creating comprises:

Defining one or more mining structure variables (col. 10, l. 44 – col. 11, l. 40).

Defining one or more acts of processing to be performed on the retrieved data, wherein the one or more acts may be performed on a subset of the retrieved data (see above and col. 29, ll. 16-48).

Performing processing on the retrieved data, wherein processing occurs only on the data determined necessary per the definitions in the mining structure (see above).

Storing results of processing the data (see above and table 1).

Ascertaining the existence of one or more mining structures (data files or training sets) available for mining model creation (this must happen in order to create a decision table classifier from the data file, see col. 11, ll. 46-50).

Creating one or more mining models (decision table classifier data structure), wherein one of the one or more mining models created from a mining structure is not equal to another of the one or more mining models created from the same mining structure (see "ii. Creating a data structure," col. 11, l. 41).



Providing results of the creation of the one or more mining models (table 1-3, see "iv. Example Visualization of a Decision Table Classifier," col. 15, l. 53).

Becker teaches a data set, as described above, but does not expressly teach a "data set storing data organized as cases, each case comprising a key value and a value in one or more variables."

However, Ushijima teaches a data set storing data organized as cases (records), each case comprising a key value and a value in one or more variables (fig. 3, col. 6, ll. 39-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Becker, such that the data set is organized in record format with a key and a value in one or more variables, since one of ordinary skill in the art would have been motivated to facilitate data organization.

\* \* \*

**[0020]** Applicant submits that, as amended, claim 1 is not obvious over the combination of Becker and Ushijima because the combination of Becker and Ushijima does not show or disclose at least the following elements as recited in claim 1 (with emphasis added):

- accessing one or more of a **plurality of data sets**, each data set storing data organized as cases, each case comprising:
- \* \* \*
- **performing operations** on a chosen one or more of a **plurality of mining structures**, wherein the operations comprise:
  - **create**, wherein the create operation sets up mining structures by creating one or more mining structures using data retrieved from the

data set, wherein each mining structure describes how the data will be modeled for data mining, and wherein the creating comprises:

- defining one or more of a plurality of mining structure variables as the variables from the data structure that will be used in the mining structure; and
- defining one or more of a plurality of acts of processing to be performed on the retrieved data, wherein the one or more acts of processing may be performed on a subset of the retrieved data;
- **process**, wherein the process operation performs initial processing on the retrieved data from the data set for mining model creation by performing processing on the retrieved data, wherein processing occurs only on the subset of data determined necessary per the definitions in the mining structure;
- **clear**, wherein the clear operation removes data from a processed mining structure;
- **drop**, wherein the drop operation deletes each chosen mining structure;
- **update**, wherein the update operation causes the mining structure to be reprocessed from the data set;
- **query**, wherein the query operation returns the requested values from the mining structure;
- \* \* \*
- based on the mining structures, creating a **plurality of mining models**, wherein **each mining model is predictive of chosen characteristics based on the values obtained from mining structure variables, and the plurality of**

**mining models includes a first mining model created from a first mining structure of the plurality of mining structures, and a second mining model, different from the first mining model, created from the first mining structure**

**[0021]** In this Action, the Examiner equates the singular *data file* and *decision table classifier data structure* disclosed by Becker with the “mining structures” and “mining models” respectively, as recited in this claim. Applicant respectfully disagrees because Becker does not disclose that its items comprise all of the features as set forth in the clarifying amendments, above.

**[0022]** Furthermore, Becker does not disclose “performing operations on a chosen one or more of a plurality of mining structures,” the operations including “create,” “process,” “clear,” “drop,” “update,” and “query,” as claimed. Becker is silent regarding these aspects of the claims and Ushijima does not cure the deficiency.

**[0023]** Consequently, the combination of Becker and Ushijima does not disclose all of the claimed elements and features of these claims. Accordingly, Applicant asks the Examiner to withdraw the rejections of these claims.

Independent Claims 10 and 30

**[0024]** The Examiner indicates (Action, pp. 4-5) the following with regard to these claims:

Claims 10, 12-18, 30 and 32-35 are drawn to substantially the same subject matter as claims 1 and 3-9 discussed above.

**[0025]** Applicant maintains that each of the claims of the application is addressed to a separate and distinct invention belonging to a separate statutory class. Thus, without conceding that these claims as a group were properly examined together, Applicant submits that, as amended, claims 10 and 30 are not obvious over the combination of Becker and Ushijima for at least the same reasons as claim 1, discussed above.

**[0026]** Consequently, the combination of Becker and Ushijima does not disclose all of the claimed elements and features of these claims. Accordingly, Applicant asks the Examiner to withdraw the rejections of these claims.

**Based upon Becker, Ushijima and Browning**

**[0027]** The Examiner rejects claims 19 and 21-29 under 35 U.S.C. § 103(a) as being unpatentable over Becker in view of Ushijima in view of Browning. Applicant respectfully traverses the rejections of these claims. Based on the reasons given below, Applicant asks the Examiner to withdraw the rejections of these claims.

Independent Claims 19 and 25

**[0028]** The Examiner indicates (Action, pp. 7-8) the following with regard to these claims:

**7. Claims 19 and 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker (U.S. Patent 6,301,579) in view of Ushijima et al (U.S. Patent 5,890,150) further in view of Browning et al (U.S. Patent 5,903,302).**

Claim 19 is drawn to substantially the same subject matter as claim 1 discussed above, in addition to "wherein when a mining model creation function detects that no mining structure utilizing data from the desired data set is currently available, creating one or more mining models includes creating the mining structure." This limitation is understood as being similar to "if a necessary file is missing, creating the file before continuing processing."

Becker as applied above teaches that a mining model is created using a mining structure (see e.g., col. 12, ll. 1-2). The mining structure is a data file that serves as a base level of records for the mining model (col. 11, ll. 46-50). Thus, the mining model could depend on whether the data file was created, and if the data file cannot be found, a mining model could not be created.

Browning teaches a function that detects a missing file, and if, for whatever reason, a file cannot be found, recreating the file automatically (col. 5, ll. 28-41).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Becker/Ushijima, such that a detection function of Browning would detect if the data file of Becker is missing, and if the file is missing, the file will be recreated. As such, Becker could continue processing the mining model (see above). This feature would meet the claimed limitations. The motivation would have been to facilitate smooth operation of the system and to ensure that the system

possesses all the data necessary for successful operation, as known to one of ordinary skill in the art.

**Claim 25** is drawn to substantially the same subject matter as claim 19, discussed above.

**Claims 21-24 and 26-29** are drawn to substantially the same subject matter as claims 3-6, further taught by Becker as discussed above.

**[0029]** Applicant maintains that each of these claims is addressed to a separate and distinct invention belonging to a separate statutory class. Thus, without conceding that these claims as a group were properly examined together, Applicant submits that, as amended, claims 19 and 25 are not obvious over the combination of Becker and Ushijima in view of Browning at least because the combination of Becker and Ushijima does not show or disclose the features as discussed above regarding claim 1.

**[0030]** Furthermore, Browning neither remedies those deficiencies nor does it show or disclose the following from amended claim 19 (with emphasis added):

- \* \* \* **when a mining model creation function detects that no mining structure utilizing data from a desired data set is currently available, creating one or more mining models includes creating said mining structure**

**[0031]** In this Action, the Examiner equates the *recreating of an Automated Video Call Distribution System initialization file (AVCD.INI)* disclosed by Browning in combination with the *data file* and *decision table classifier data structure* disclosed by Becker which the Examiner equates with the “mining structures” and “mining models” respectively, with the claimed feature: “when a mining model creation function detects

that no mining structure utilizing data from a desired data set is currently available, creating one or more mining models includes creating said mining structure” as recited in this claim. Applicant respectfully disagrees.

**[0032]**      Browning does not disclose “when a mining model creation function detects that no mining structure utilizing data from a desired data set is currently available, creating one or more mining models includes creating said mining structure,” as claimed. Instead, Browning discloses (c. 5, ll. 4-7 and 25-41) teaches:

DATAPOINT™ Automated Video Call Distribution System (“AVCD”), is a DTMF (Dual Tone Modulated Frequency) based call routing system under the mark designation MINX™.

\* \* \*

#### Installation

To install AVCD, use a Windows Program Manager, or equivalent, and execute the SETUP.EXE program. If AVCD is being installed on a network version of Windows where the SYSTEM director is write protected, add the IN option to the SETUP.EXE command line; for example: SETUP/N. This will copy all files destined for the windows SYSTEM director to the user’s WINDOWS directory.

During installation, a default AVCD.INI configuration file is copied to the application directory. This fill should be examined using any text editor, such as the Windows NOTE-PAD accessory application, to confirm or change to settings as appropriate for the site.

If, for whatever reason, the AVCD.INI file cannot be found, it will be recreated automatically by AVCD using programmed defaults, and placed into the same directory as AVCD.EXE.

**[0033]** Browning is directed to the field of video telecommunications and permitting “a video caller, without human operator assistance, to access any video station of a video network.” Browning teaches that during installation of an *Automated Video Call Distribution System* a default file is copied, then if the default file cannot be found (including after editing) recreating that file using defaults and placing the recreated default file in the same directory as an associated executable file.

**[0034]** Browning’s, recreating a copy of an already copied file from programmed defaults when a copy cannot be found is not like the “mining model creation function” claimed. The claimed “mining model creation function detect[ing] that no mining structure utilizing data from a desired data set is currently available” and “creating one or more mining models include[ing] creating said mining structure” specifically does not contemplate a *copy* of the mining structure to be created having already been created.

**[0035]** Further, unlike the claim, Browning’s recreation uses defaults, whereas the claim detects that a particular mining structure utilizing data from a desired data set is not available and creates the desired mining structure during creation of the mining model.

**[0036]** Consequently, the combination of Becker and Ushijima with Browning does not disclose all of the claimed elements and features of these claims. Accordingly, Applicant asks the Examiner to withdraw the rejections of these claims.



Dependent Claims 3-7, 12-16, 21, 23, 24, 26, 28, 29, 32, 34, and 35

**[0037]** These claims ultimately depend upon independent claim 1. As discussed above, claim 1 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

**[0038]** The Examiner indicates (Action, pp. 5-6) the following with regard to these claims:

**Claims 3-5** are rejected because the limitation of "one mining structure" was met in the parent claim.

**As to claim 6**, Becker as applied above further teaches wherein links between the one or more mining models and the mining structure from which each mining model was created are stored, and where by changes in one or more mining structures are simultaneously reflected in each of the one of more mining models created from each of the changed mining structures (col. 29, l. 49 – col. 50, l. 2).

**As to claim 7**, Becker as applied above further teaches evaluating two or more mining structures created using data from the same data set by comparing at least one mining model created from each of the two or more mining structures, and providing the results of the comparison (col. 29, ll. 13-47).

\* \* \*

**Claims 10, 12-18, 30 and 32-35** are drawn to substantially the same subject matter as claims 1 and 3-9 discussed above.

\* \* \*

**Claims 21-24 and 26-29** are drawn to substantially the same subject matter as claims 3-6, further taught by Becker as discussed above.

**[0039]** Applicant maintains that each of these claims is addressed to a separate and distinct invention. Thus, without conceding that these claims as a group were properly examined together, Applicant submits that, as amended to clarify the elements previously presented, claims 3-7, 12-16, 21, 23, 24, 26, 28, 29, 32, 34, and 35 are not obvious over the combinations cited at least because Becker (the reference cited for each claimed element) does not show or disclose at least the following elements as recited in claims 3-7 (with emphasis added):

3. \* \* \* one **mining structure** created from a data set **is not equal to another mining structure created from the same data set.**

4. \* \* \* the cases represented by the mining structure variables stored in one **mining structure** created from a data set **are not the same** as the cases represented by the mining structure variables stored in **another mining structure created from the same data set.**

5. \* \* \* the values stored in one mining structure's mining structure variables created from a data set **are not equal to the values stored in another mining structure's mining structure variables created from the same data set.**

6. \* \* \* **links** between the one or more of a **plurality of mining models** and the **mining structure from which each mining model was created are stored**, facilitating changes in one or more mining structures being simultaneously reflected in each of the one or more mining models created from each of the changed mining structures.

7. \* \* \*

evaluating **two or more mining structures** created using **data from the same data set by comparing to each other**, at least one **mining model created from each of the two or more mining structures**;  
providing the results of the comparison.

**[0040]** Applicant cannot respond to Examiner's rejection of claims 3-5 because the claimed features were not addressed beyond rejection based on claim 1. Therefore, if these claims are not recognized as allowable, Applicant respectfully requests and reserves the right to respond to any future rejections of these claimed features.

**[0041]** In this Action in rejecting claim 6, the Examiner appears to equate *back-fitting a decision table classifier file* as disclosed by Becker with the structure and functionality of stored links between mining models and mining structures, as recited in this claim. Applicant respectfully disagrees since the *back-fitting* taught by Becker is directed to reducing error rate in probabilities, counts, and weights based on secondarily classifying a larger data set of given data which "does not alter the structure of the classifier," (c. 29-30, ll. 49-2). Becker's teaching is contrary to the claimed feature **"changes in one or more mining structures being simultaneously reflected in each of the one or more mining models created from each of the changed mining structures."**

**[0042]** In this Action in rejecting claim 7, the Examiner appears to equate *two methods for estimating accuracy of a classifier: hold-out and cross-validation* as disclosed by Becker with “evaluating **two or more mining structures** created using **data from the same data set** by **comparing to each other**, at least one **mining model created from each of the two or more mining structures**,” as recited in this claim. Applicant respectfully disagrees since the methods taught by Becker are directed to *using a training set of 2/3 of the data with a test set of the remaining 1/3 of the data and repeated training and testing of varying subsets of roughly equal size* (c. 29, ll. 13-47). Neither of which suggest the claimed: “evaluating **two or more mining structures** created using **data from the same data set** by **comparing to each other**, at least one **mining model created from each of the two or more mining structures**.”

**[0043]** By the Applicant’s best attempt at understanding the Examiner’s rejection, nothing in Becker suggests, as the Examiner has equated them, multiple of Becker’s classifiers being created from multiple of Becker’s data files, the data files being created from the same data set, and comparing classifiers created from different data files. Becker does not teach this, and the features of this claim are distinct over Becker.

**[0044]** Consequently, the combination of Becker and Ushijima does not disclose all of the claimed elements and features of these claims. Accordingly, Applicant asks the Examiner to withdraw the rejections of these claims.

### **Lack of Reason to Combine References – Lack of *Prima Facie* Case of Obviousness**

**[0045]** In addition to the cited arts failing to disclose each and every element of the rejected claims as discussed above, Applicant disagrees with the Examiner's reasoning in obviousness rejections. Applicant requests the Examiner's assistance to help to understand how to combine the cited references without the benefit of piecemeal consideration, hindsight reasoning, or using the Applicant's claims to acquire motivations to obtain the claimed results.

**[0046]** The Examiner acknowledges that Becker does not teach all of the features recited in the claims. The Examiner therefore relies on Ushijima, Smith, and Browning to fill in the gaps, stating that the purported combinations would be obvious. Applicant disagrees.

### **No Reason to Combine References**

**[0047]** “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. . . . KSR Int’l Corp. v. Teleflex, Inc., Slip Op. at 14 (U.S. Apr. 30, 2007) (quoting In re Kahn, 441 F. 3d 977, 988 (CA Fed. 2006)). A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of argument reliant upon *ex post* reasoning,” Id., Slip Op. at 17, *See also* Graham v. John Deere Co., 383 U.S. at 36, 148 USPQ at 474.

**[0048]** Applicant submits that Examiner has not identified some suggestion, teaching, or reason from the cited references themselves (or from the knowledge of one of ordinary skill in the art at the time of the invention) that would have led one of ordinary skill in the art at the time of the invention (hereinafter, “OOSA”) to combine the disclosures of the cited references in the manner claimed. More specifically, there is no reason to combine because:

- the cited art does not suggest the desirability of the claimed invention;
- the Examiner has not provided any objective and particular evidence showing why OOSA would be motivated to combine the teachings of the references;
- the cited art does not disclose all of the features of the claims; and
- the teaching of the cited art conflicts and teaches away from the combination.

**[0049]** Without conceding that any of the purported combinations are proper, particularly, Applicant disputes that the purported modification of Becker with Ushijima would have made the rejected claims obvious to one of ordinary skill in the art at the time of the invention. On page 5 of the Action, the Examiner states that it would be obvious to modify “Becker, such that the data set is organized in record format with a key and a value in one or more variables, since one of ordinary skill in the art would have been motivated to facilitate data organization.” Applicant disagrees that this combination would have made the rejected claims obvious at least because Ushijima conflicts and teaches away from the combination.

**[0050]** Without conceding that any of the purported combinations are proper, particularly, Applicant disputes that the purported combination of Browning with the other arts cited would have been obvious to one of ordinary skill in the art at the time of the invention. On pages 7-8 of the Action, the Examiner states that it would be obvious to modify “Becker/Ushijima, such that a detection function of Browning would detect if the data file of Becker is missing, and if the file is missing, the file will be recreated . . . The motivation would have been to facilitate smooth operation of the system and to ensure that the system possesses all the data necessary for successful operation.” Applicant disagrees at least because there is no evidence that the modification of a combination of Becker and Ushijima with Browning would facilitate smooth operation of the system or ensure that the system possesses all the data necessary for successful operation.

**[0051]** Accordingly, the Applicant respectfully asks the Examiner to withdraw the rejections of these claims.

Cited References Express no Reason to Combine

**[0052]** On page 5 of the Action, the Examiner states that it would be obvious to modify “Becker [with Ushijima], such that the data set is organized in record format with a key and a value in one or more variables, since one of ordinary skill in the art would have been motivated to facilitate data organization.” Applicant disagrees that this combination would have been obvious to one of ordinary skill in the art at the time of the invention at least because Becker discloses organized data in conventional tables, rows and columns; Becker is directed to presenting the organized data visually using charts (see Abstract, Figures 3, 5, 9A, 9B, and Summary of the Invention ). Thus, OOSA would have no reason to look to Ushijima to solve a problem already solved by Becker.

**[0053]** The above statement is draws on the reasoning of the BPAI presented in *Ex parte* Rinkevich (non-precedential decision) on May 29, 2007.

**[0054]** In its reasoning, the BPAI stated: “[a] factfinder should be aware, or course, of the distortion caused by hindsight bias and must be cautious of argument reliant upon *ex post* reasoning,” (quoting KSR Int’l Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 USPQ2d at 1397. See also Graham v. John Deere Co., 383 U.S. at 36, 148 USPQ at 474). In that case, as in the matter as issue here, the Applicant raised the issue of improper hindsight reasoning. Therein the BPAI was persuaded that the problem or deficiency that the Examiner raised as motivation to seek out a secondary reference, “impermissibly used the instant claims as a guide or roadmap in formulating the rejection.” The BPAI further quoted the Supreme Court in *KSR* stating that “[r]igid preventative rules that deny factfinders recourse to common sense, however, are neither necessary under our case law



nor consistent with it,” KSR Int’l Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 USPQ2d at 1397. Applying common sense to the case at hand, the BPAI concluded that “a person of ordinary skill in the art *having common sense* at the time of the invention would not have reasonably looked to Wu to solve a problem already solved by Savill,” (emphasis provided). Ultimately the BPAI found that the Examiner had impermissibly used the claims as a guide to formulate the rejection.

**[0055]** As in *Ex parte Rinkevich*, Applicant submits OOSA would have no reason to combine the teachings of Becker with Ushijima because neither reference expresses a reason to combine the teachings of these references, either explicitly or implicitly.

**[0056]** At p. 19 of the Action, the Examiner suggests that the reason to combine the teaching of Becker and Ushijima is “one of ordinary skill in the art would have been motivated to facilitate data organization.” However, because Becker already addresses organized data in tables, rows, columns, and visually using charts (*see* Abstract, Figures 3, 5, 9A, 9B, and Summary of the Invention ). , OOSA *having common sense* would not have reasonably looked to Ushijima for such teaching since Becker had already addressed the problem.

**[0057]** Additionally, Applicant submits OOSA would have no reason to combine the teachings of Becker and Ushijima with Browning because none of the references expresses a reason to combine the teachings of these references, either explicitly or implicitly. At p. 7-8 of the Action, the Examiner suggests that the motivation to combine the teaching of these references is “The motivation would have been to facilitate smooth operation of the system and to ensure that the system possesses all the data necessary for successful operation.”

**[0058]** However, Applicant submits that Browning never teaches, discloses, suggests or hints at any need to “smooth operation” of a system such as that of Becker or Ushijima. Nor does Browning teach, disclose, suggest or hint at any need for possessing “all the data necessary” for such a system. Indeed, the problem solved by Browning relates to replacing a “.ini” file which may be inadvertently misplaced in the directory system and which is used by an *Automated Video Call Distribution System* user to customize installation of the AVCD product. Applicant submits that this problem does not imply a need to “smooth operation” or to “possess all the data necessary” for a system such as that of Becker or Ushijima. It also does not suggest “when a mining model creation function detects that no mining structure utilizing data from a desired data set is currently available, creating one or more mining models includes creating said mining structure,” as recited this claim.

**[0059]** In addition, neither Becker nor Ushijima discloses that their teaching could be utilized in an installation system for installing an Automated Video Call Distribution system (like what Browning discloses).

**[0060]** For the foregoing reasons, Applicant submits that none of these references expresses a reason to combine the teachings of these references. Accordingly, OOSA would have no motivation to combine the teachings of the cited references.

*No Showing of Objective Evidence*

**[0061]** Furthermore, Applicant respectfully submits that the Office has not met its burden in showing a reason to combine Becker with Ushijima and Browning. More specifically, the Examiner has not identified any objective and particular evidence found in the cited references or known to those of ordinary skill in the art at the time of the invention that shows why OOSA would be motivated to combine the teachings of the cited references.

**[0062]** The Examiner has not identified any specific portion of the cited references as being objective and particular evidence that would have motivated OOSA to look towards the teachings of the other to produce the combination of references that the Examiner proposes. Nor has the Examiner presented any objective and particular evidence that such a combination was known to one of ordinary skill in the art at the time of the invention that would have motivated OOSA to look towards the teachings of the cited references to produce the combination of references that the Examiner proposes. Applicant respectfully submits that the Examiner cannot maintain this obviousness-based rejection without pointing out, with particularity, evidence from the specific portions of the cited references, evidence that such a combination, or evidence that a reason for making such a combination was known to one of ordinary skill in the art at the time of the invention that would have motivated OOSA to look towards the teachings of the other to produce the combination of references that the Examiner proposes.

**[0063]** For the foregoing reasons, Applicant submits that the Office has not met its burden in showing objective evidence to combine references. Accordingly, OOSA would have no motivation to combine the teachings of cited references.

*Purported Combination Does Not Disclose ALL of the Claim Features*

**[0064]** Regarding the purported combination of Becker and Ushijima and Browning: for a file to be *missing* and *recreated* suggests that the file *exists* which is not the same as a **“mining model creation function” “creating [a] mining structure” “when a mining model creation function detects that no mining structure utilizing data from a desired data set is currently available,”** as is claimed. This feature of the claims is not disclosed by the cited references.

Cited Reference Conflicts and Teaches Away from the Combination

**[0065]** On page 5 of the Action, the Examiner states that it would be obvious to modify “Becker [with Ushijima], such that the data set is organized in record format with a key and a value in one or more variables, since one of ordinary skill in the art would have been motivated to facilitate data organization.” Applicant disagrees that this combination would have been obvious to one of ordinary skill in the art at the time of the invention at least because Ushijima conflicts and teaches away from using *data sets made up of large amounts of raw data* as taught by Becker (c. 10, ll. 32-33). Instead Ushijima is directed to using random sampling, grouping and aggregation processing to optimize efficient querying, (c. 3, ll. 40-47). This purported combination would not be obvious at least because Ushijima conflicts and teaches away from the teaching of Becker. Thus, this purported combination would not render the rejected claims obvious.

**[0066]** Ushijima states “In the data cube approach, some part of estimated queries [sic] are processed before they are actually accepted. If an already processed query is issued to the data base, the query is not actually processed but only returning the result. In this approach, however, has drawbacks such as requiring to have a large storage area for preparing query results and a long query processing time for queries for which no query results have been prepared because a range of queries that can be handled by performing necessary processing beforehand is restricted,” (c. 1, ll. 36-45). Ushijima is directed to using random sampling, grouping and aggregation processing to optimize efficient querying, (c. 3, ll. 40-47). Ushijima is not directed to data mining, and specifically teaches away from accessing whole data sets for its processing.

**[0067]** For the foregoing reasons, Applicant submits that neither Becker nor Ushijima expresses a reason to combine the teachings of these references because Ushijima teaches away from Becker. Accordingly, OOSA would have no motivation to combine the teachings of the cited references.

**[0068]** In sum, Applicant submits that there is no suggestion, teaching, or reason given by one reference that would motivate OOSA to combine it with the teachings of the other references. More specifically, there is no reason to combine because the combination of references is contrary to the teaching of Ushijima; no motivation exists in the references themselves to make the combinations; and the Examiner has not provided any objective and particular evidence showing why OOSA would be motivated to combine the teachings of the references. Accordingly, Applicant asks the Examiner to withdraw the rejection of claims rejected based on this combination.

**[0069]** As shown above, the combination of Becker and Ushijima and Browning does not disclose all of the claimed elements and features of these claims. Accordingly, Applicant asks the Examiner to withdraw the rejection of claims rejected based on this combination.

### **Dependent Claims**

#### **Dependent Claims 2-9, 11-18, 20-24, 26-29, and 31-35**

**[0070]** These claims ultimately depend upon independent claims 1, 10, 19, 25, and 30. As discussed above, claims 1, 10, 19, 25, and 30 are allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable.

Additionally, some or all of these claims may also be allowable for additional independent reasons.

**[0071]** Applicant requests that the Examiner withdraw the rejection of each dependent claim where its base claim is allowable.

### **Conclusion**

**[0072]** All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action.** Please call/email me or my assistant at your convenience.

Respectfully Submitted,

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By: 

Beatrice L. Koempel-Thomas  
Reg. No. 58213  
(509) 324-9256 x259  
bea@leehayes.com  
[www.leehayes.com](http://www.leehayes.com)

My Assistant: Carly Bokarica  
(509) 324-9256 x264  
[carly@leehayes.com](mailto:carly@leehayes.com)